

ABSTRACT OF THE DISCLOSURE

Disclosed is an exposure apparatus for illuminating a reticle with exposing light from an exposing light source via a light-source lens system constituting illumination optics, and projecting a pattern, which has been formed on the reticle, onto a wafer via a projection lens system constituting projection optics, thereby exposing the wafer to the pattern. The apparatus includes vessels for hermetically sealing the light-source lens system and the projection lens system disposed on the optical path of the exposing light from the exposing light source to the reticle, means for supplying the vessels with a specific gas, a vacuum source for evacuating the interior of the vessels, a vacuum-pressure controller for exercising control to hold the internal pressure of the vessels constant, and an escape valve for reducing the differential pressure between the internal pressure of the vessels and atmospheric pressure to a value below a predetermined pressure.